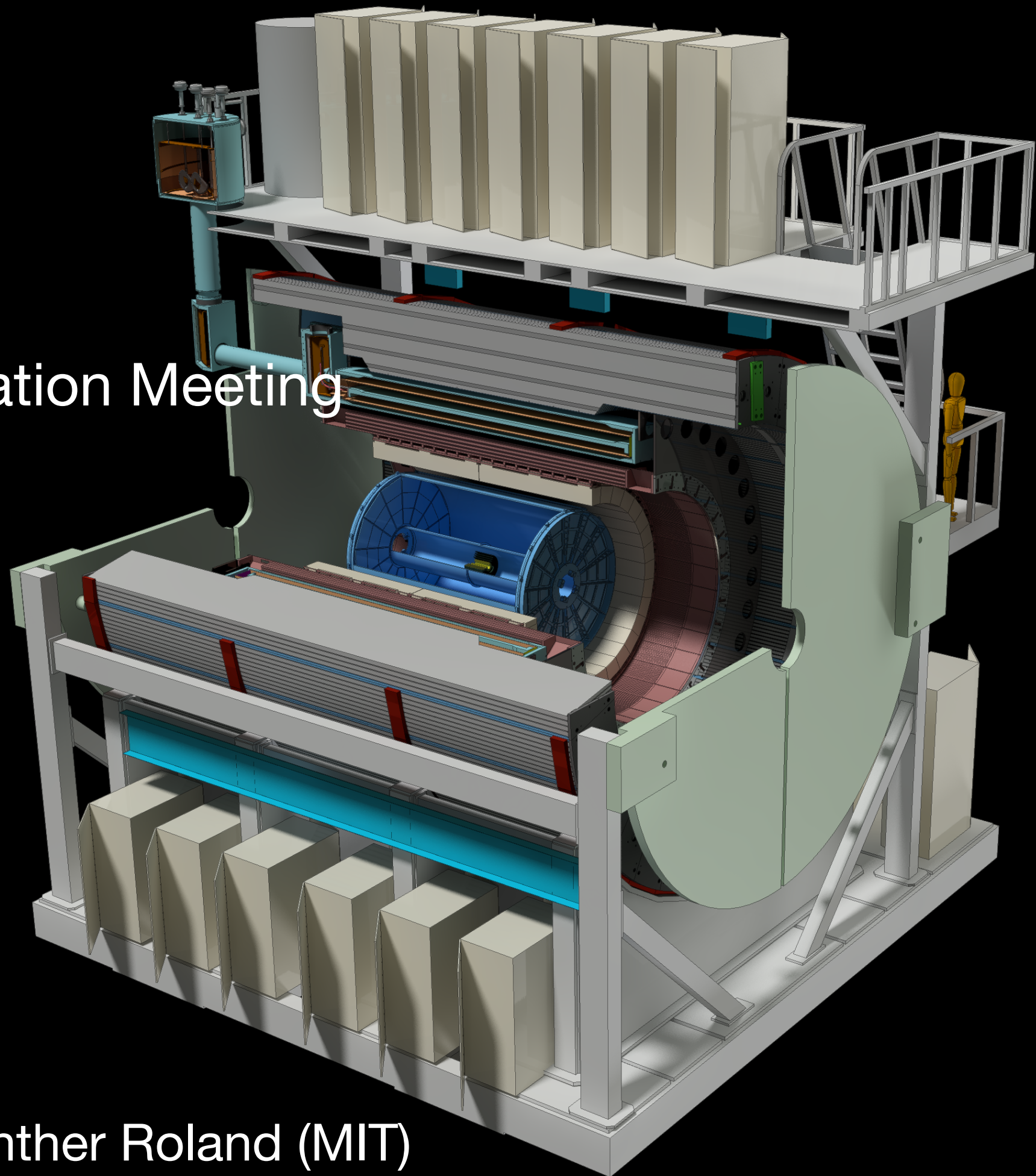


4th sPHENIX Collaboration Meeting
BNL
June 13-14, 2017



Dave Morrison (BNL), Gunther Roland (MIT)

Inaugural sPHENIX collaboration meeting



Rosi Reed (Lehigh)

Sevil Salur (Rutgers)

Hosts


Second sPHENIX collaboration meeting May 2016


BNL Intranet Home Page | Brookhaven x

David

← → ↻ https://intranet.bnl.gov 🔍 ☆ 🛑 👤 📺 ⋮

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 *Brookhaven Today*



73°F 5 mph 47%

• Emergency Information

A - Z Site Index

Employee Tools

Housing

Integrated Facility Mgmt.

IT Self Service

Meeting Room Request

PeopleSoft Financials

PeopleSoft HR

Research Library

SBMS

Travel Office

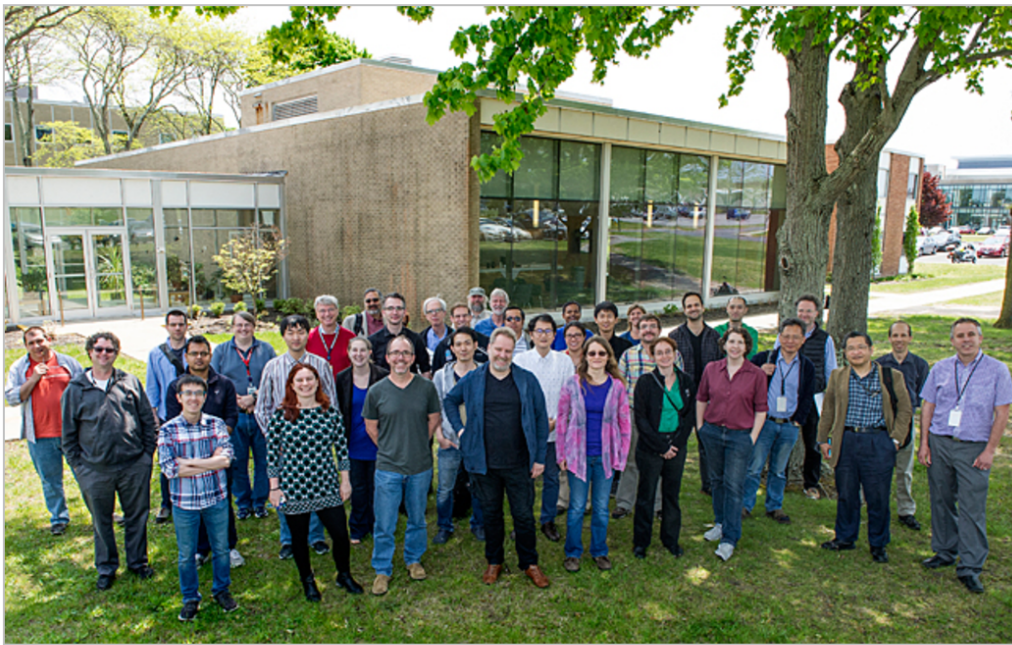
BNL Site Access

Maps & Directions

Guest, User, Visitor Center

Public Event Request

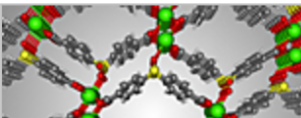


Main Gate Access Forms



Introducing...sPHENIX!
A new collaboration takes aim at understanding how the ultra-hot, ultra-dense plasma that formed our early universe gets its intriguing properties. [More...](#)

Other News

Archives



Safety Resources

FY16 Stats DART: 9 DOE Recordable: 20

Resources Report Concern

Announcements

♥ [Two-day Blood Drive Today, 6/15, & Thursday, 6/16](#)

❗ [Safety Day is Friday, 6/17, 10:30 a.m.-1:30 p.m., in Berkner](#)

❗ [Membership Promotions for Costco Wholesale Club in Berkner Thursday, 6/16](#)

✕ [Automated Teller Machine in Berkner \(Bldg. 488\) Out of Service 6/13-7/9](#)

❗ [Sign Up for Free Biometric Wellness Screenings on Safety Day](#)

Newsclips

[BNL's Cialella a 'consensus builder' in environmental science](#)

- Village Beacon Record, June 7

3

Facebook interface showing the sPHENIX Experiment page. The page header includes the Facebook logo, the page name "sPHENIX Experiment", a search bar, and navigation links: "Gunther", "Home", and "Find Friends". There are also icons for notifications (82), a question mark, and a dropdown arrow.

The main content area displays a large group photo of the sPHENIX Experiment team standing in front of a building labeled "25 Park Place". Above the photo is a message: "This is what your Page looks like to a visitor. [Switch back to your view](#) to manage this Page."

Below the photo are interaction buttons: "Liked", "Following", "Share", and "Send Message".

The left sidebar shows the page name "sPHENIX Experiment" with the handle "@sPHENIX.Experiment", navigation links for "Home", "Posts", "Photos", "About", and "Likes", and a "Create a Page" button.

The "Posts" section shows two recent posts:

- sPHENIX Experiment shared their post. May 24 at 9:22am ·
- sPHENIX Experiment May 23 at 7:53pm ·

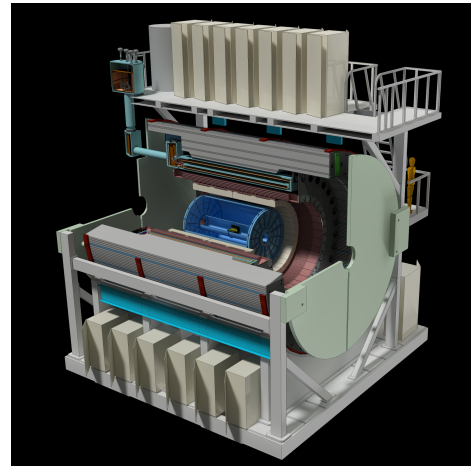
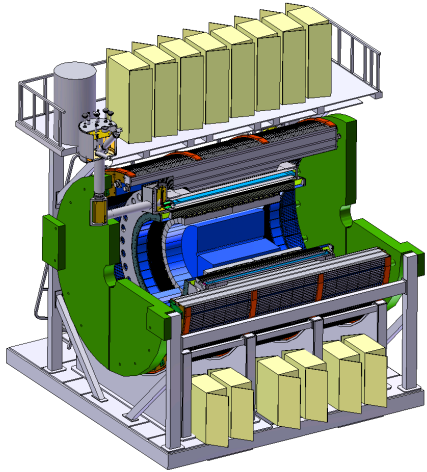
The right sidebar features a location tag "Science, Technology & Engineering in Upton, New York" and a "Community" section with the text "Invite your friends to like this Page" and "75 people like this".

1^{1/2} years of **sPHENIX - The Collaboration**
Where do we stand?
What lies ahead?

2016 Highlights

- Established collaboration structure
- ALD baseline-scope charge and collaboration response
- Virtuality evolution of sPHENIX tracker
- **Received CD-0**
- Growing the collaboration

2016 Highlights



Subject: sPHENIX
Date: Thu, 27 Oct 2016 21:04:43 +0000
From: Mueller, Berndt <bmueller@bnl.gov>
To: Morrison, David <morrison@bnl.gov>, Gunther M Roland <rolandg@MIT.EDU>
CC: O'Brien, Edward <eobrien@bnl.gov>, James Nagle
<jamie.nagle@colorado.edu>

Dear Dave and Gunther (Cc: Jamie):

I just received word that CD-0 for sPHENIX was approved today. You can go and celebrate (for one evening).

Berndt

2017 Highlights to-date

- Established collaboration procedures
- MVTX pre-proposal
- Modest Forward Upgrade LOI
- Preparing for CD-1
- Growing the collaboration

Collaboration procedures

Collaboration procedures

- More formal process for technical and physics documentation
 - sPHENIX notes
 - lightweight review process
 - first attempt with forward LOI worked ~ok
- Still hoping to establish sPHENIX office
 - speaker's bureau, web presence, outreach, document archival
 - so far, manual labor by co-spokesperson...
- Input from collaboration - what works? what doesn't? what's missing?

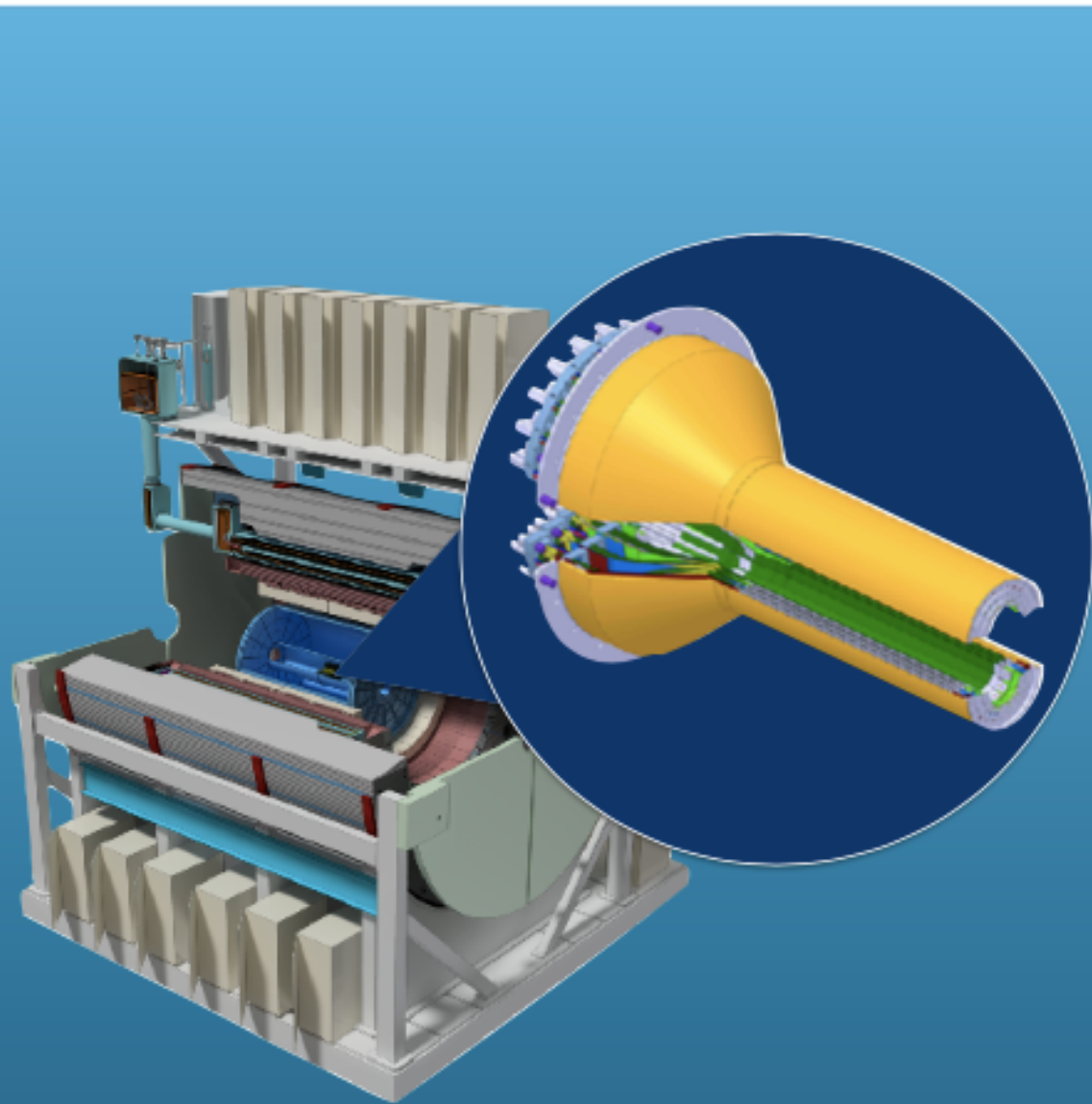
Publication policy reminder

Proposed publication policy for sPHENIX notes:

- sPHENIX will prepare a “Performance Note” or “Physics note” for each performance or physics study to be presented in public
 - Performance note: Under guidance of L2 managers or tracking group
 - Physics note: Under guidance of TG conveners
- Each note should be prepared by a group of primary authors, with one of the primary authors designated as contact person.
- The **internal** primary author list for each note will consist of collaborators that made significant specific contributions to analysis or paper writing
- Each note will be given a unique ID, following a scheme of “sPh-Group-YYYY-##”, e.g. sPH-JET-2017-001 or sPH-TRG-2017-001
- For each note, a unique directory in a repository and a mailing list will be created, identified by the note ID. Each note should be accompanied by a wiki page, collecting relevant links, documentation, meeting notes, presentations etc
- Progress on each study should be reported regularly in subsystem, simulation or topical group meetings
- Once the study is considered final by the authors, it will be reviewed for content and considered for pre-approved by the subsystem/topical group conveners
- After convener/subsystem manager pre-approval, the note will be presented in a general meeting for collaboration approval
- Once approved, the text of the note will go for a one-week collaboration review. For each note, at least two sPHENIX institutions will be specifically asked to provide a report for the note, paying particular attention to the quality of language and presentation
- Once conveners and co-spokespeople are satisfied that all questions and comments have been addressed, the note will be frozen and made public on the sPHENIX website. Relevant physics plots will be prepared for public access through the website. For public presentations, the note ID should be quoted where relevant. Submission to the arXiv will be considered where appropriate
- When necessary, variations from the policy will be overseen by the project manager and spokespeople (e.g., for notes crossing boundaries between groups/subsystems)

MVTX pre-proposal and beyond

MVTX pre-proposal and beyond

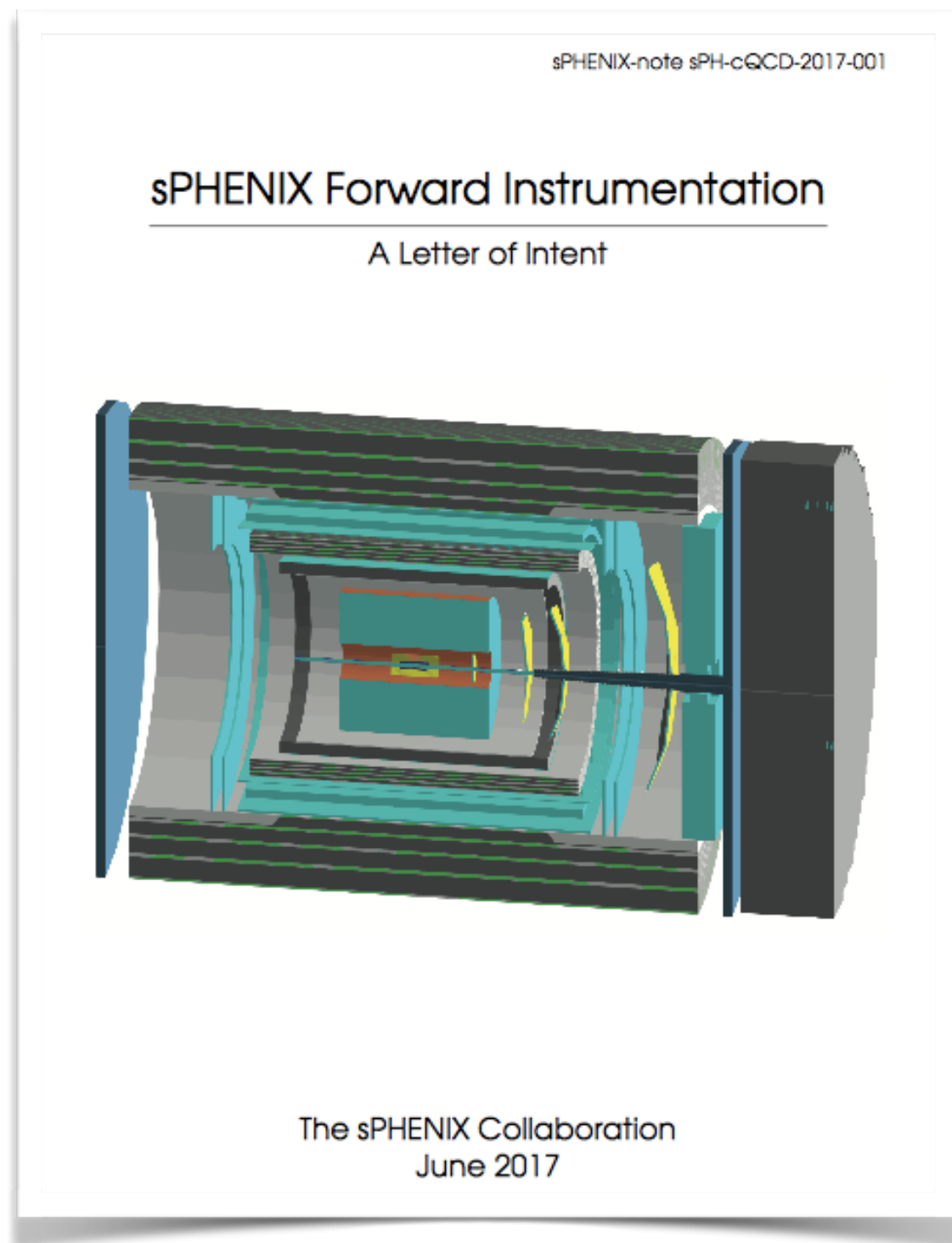


A Monolithic Active Pixel Sensor
Detector for the sPHENIX
Experiment

- Fall 2016 project plan: MVTX as separate project outside of Baseline
- MVTX consortium developed MVTX pre-proposal
- Sent to DOE from LANL on Feb 3
- Re-sent to DOE from BNL on Feb 9
- Concerns reg. sequencing, i.e. should sPHENIX CD-1 come before consideration of “upgrades”
- Next step: Director’s review at BNL on July 11-12
- see presentation tomorrow morning

Modest Forward Upgrade LOI

Modest Forward Upgrade LOI



- Request (“invitation”) by ALD to STAR and sPHENIX on Feb 22
- sPHENIX LOI submitted to ALD on June 3
- Presentation at this week’s PAC meeting (Christine Aidala)
- Many thanks to the cold QCD Topical Group and contact person Nils Feege!
- Successful test case for publication procedure - first of many!
- see presentation later today

Preparing for CD-1

Preparing for CD-1

Project Phase	Critical Decision
Initiation There is a need that cannot be met through other than material means.	CD-0, Approve Mission Need
Definition The selected alternative and approach is the optimum solution.	CD-1, Approve Alternative Selection and Cost Range
Execution Definitive cost, scope, and schedule baselines have been developed.	CD-2, Approve Performance Baseline
Execution Project is ready for implementation.	CD-3, Approve Start of Construction
Transition/Closeout Project is ready for turnover or transition to operations.	CD-4, Approve Start of Operations

- Project is proceeding through a long series of prep meetings for DOE CD-1 review
- Review originally scheduled for early November - see news from project
- Some new cost challenges uncovered - see news from project
- Support from collaboration for performance and physics studies - see next slide

Run plan, performance and physics studies

- Common multi-year run plan for all studies (Jamie*) - see presentation today
- Performance/physics notes in preparation
 - Tracking (Tony*) - see presentation today
 - Jet performance (Dennis*) - see presentation today
 - HF jets (Jin*) and HF hadrons (Xin*) - see presentation today
 - Upsilon (Marzia*) - see presentation today
- Aim is to produce public sPHENIX note for each study

Growing the collaboration

Growing the collaboration

- Three new institutions expressed interest
 - Central China Normal University
 - Purdue University
 - Saclay
- Presentations at IB meeting tomorrow
- Discussions with University Sao Paulo
- Contact with other international institutions

2017 continued

Key issues for remainder of 2017

- Collaboration working together with Project toward CD-1
- MAPS MIE proposal
- Refreshing the LRP science case
- sPHENIX and EIC
- Growing the Collaboration

Towards CD-1

Project Phase	Critical Decision
Initiation There is a need that cannot be met through other than material means.	CD-0, Approve Mission Need
Definition The selected alternative and approach is the optimum solution.	CD-1, Approve Alternative Selection and Cost Range
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Execution Project is ready for implementation.	CD-3, Approve Start of Construction
Transition/Closeout Project is ready for turnover or transition to operations.	CD-4, Approve Start of Operations

- Opportunity and need for broad engagement by collaboration

Refreshing the science case

- sPHENIX future rests on LRP science case
- How to extract “microscopic nature” of QGP from proposed measurements is open question
- We need to lead this discussion
- Workshops this year (e.g., INT program May/June, CERN Jet Workshop (August), organize meeting at BNL?)
- Need to engage with theorists (JETSCAPE)

sPHENIX and EIC

- NAS process underway
- Flurry of activity at BNL: meetings, working groups, new hires
- How can sPHENIX contribute? Do we need to lead effort?

Growing the collaboration, cntd.

- Expect continued discussion with various US institutions
 - CD-0 helped; budget uncertainty doesn't
- Working to increase international footprint
 - Europe (Saclay,...)
 - Asia (CCNU,...)
 - South America (Sao Paulo)
- Input from collaboration - time to talk to your friends